

BUREAU OF RADIOLOGICAL HEALTH SERVICES
NEW YORK STATE HEALTH DEPARTMENT
ALBANY, NEW YORK

Considerations In Granting The Mount Kisco Urban Renewal Agency

AN EXEMPTION

From Part 16 of the New York State Sanitary Code
Allowing Burial of Radioactive Wastes

The building and property in the Village of Mount Kisco formerly used by Canadian Radium and Uranium Corporation as a radium reclamation plant is contaminated with small amounts of Radium 226 and its daughter products. The building was decontaminated by the Corporation during the years 1958 through 1962; however, some residual contamination remained because it was not economically feasible to reduce the contamination to background levels. In the fall of 1962 contaminated building material and soil were removed from the site and buried in a sanitary landfill at Croton Point operated by the Westchester County Department of Parks, Recreation and Conservation. The removal, transportation and burial operations were supervised by the State and County Health Departments and the State Labor Department. A permit was issued by the State Health Department for the burial in 1962. No public health problem resulted from the previous burial operation. Mount Kisco Urban Renewal Agency now proposes to demolish the building, clear the site, and use the site for construction of new buildings. The area must be sufficiently decontaminated to be considered usable for any purpose.

The amount of contamination in the building has been estimated by the applicant as being 5 to 40 milligrams of Radium and the volume of the demolished building as 1,000 cubic yards. These figures appear reasonable. There is an additional amount of radium and a volume of waste represented by the soil surrounding and underneath the building. It is estimated that as much as 2,000 cubic yards of soil and demolished building material may have to be buried and that there may be up to 100 milligrams of radium in the total waste. Assuming a density of 100 pounds per cubic foot the average radium concentration will be 0.4×10^{-4} microcuries per gram which is less than the concentration of radium naturally found in a low grade uranium ore. The building is considered sufficiently contaminated to require special handling during demolition and final disposal but is not considered to be sufficiently contaminated to require packaging and transporting long distances to an authorized site.

In order to prevent the burial of objects small in size but high in radium concentration such as a radium source, a limit has been placed on the allowable dose rate from the surface of an object. The limit of one milliroentgen per hour of gamma radiation one foot from the surface of the object effectively eliminates all concentrated sources from the burial site.

The Croton Point disposal area is considered to be one of the best locations for the burial in Westchester County. The nature of decomposed refuse restricts the future use of the site for building excavations or well water supplies. Any future building would be placed on piles and any future well would be driven below and sealed off from the refuse fill above. Also the Westchester County Department of Parks, Recreation and Conservation must keep a permanent record of the point of burial and must not allow the development of any well within 500 feet of the burial area.

If the entire radium content of the wastes buried were to be leached out into the Hudson River over a one-year period, the concentration of Radium 226 in the Hudson River would not even approach one per cent of maximum permissible concentration of Radium 226 for drinking water. The Hudson River at Croton Point is salty and there are no public water supplies taken from the Hudson River downstream. At its present location the building is located on the watershed of New York City's water supply and presents a greater potential problem at its existing location than it would buried at Croton Point.

The burial can be made at Croton Point Park without undue danger to life and property from radiation hazards.

NEW YORK STATE DEPARTMENT OF HEALTH
84 HOLLAND AVENUE
ALBANY, NEW YORK

EXEMPTION

ALLOWING BURIAL OF RADIOACTIVE WASTES



Application having been made for an exemption from the requirements of Section 16.8 of Part 16 of the New York State Sanitary Code, pursuant to the Public Health Law and Part 16 of the State Sanitary Code and in reliance on statements and representations heretofore made by the applicant designated below, an exemption is hereby granted permitting such applicant to dispose of radioactive materials by burial in the ground. This exemption is subject to all applicable rules, regulations and orders now or hereafter in effect of all regulatory agencies concerned and to the conditions specified below.

1. Applicant Mount Kisco Urban Renewal Agency.
2. Address Municipal Building, Village of
Mount Kisco, New York.
3. Expiration Date: December 31, 1966.
4. The radioactive material to be buried shall consist only of Radium isotopes and daughter products. The radioactive material shall be in contaminated building material or soil that has been removed from the site of the former Canadian Radium and Uranium Corporation building at 69 Kisco Avenue, Mount Kisco, New York.
5. The amount of waste material to be buried shall not exceed 2,000 cubic yards.
6. Any article or contaminated material less than one cubic foot in volume from which the gamma dose rate exceeds one milliroentgen per hour at one foot from the surface of the article shall not be buried under this exemption. Any article or contaminated material that exceeds this limit shall be properly packaged, transported to and disposed of at an authorized site.
7. Burial shall be at a site within the Croton Point Park, Village of Croton-on-Hudson, Town of Cortlandt, Westchester County, New York. Burial shall be 3 feet above the mean high tide level of the Hudson River, shall be more than 500 feet from the Hudson River or any other stream or a ground water well, shall be covered with at least one foot of fill at the end of each day radioactive material is deposited and at least 6 feet of fill within 14 days after the last load of radioactive material is deposited.
8. The Westchester County Health Department and the Westchester County Department of Parks, Recreation and Conservation shall be notified at the start of demolition of the building.
9. There shall be no backfilling of excavated areas until approval of Westchester County Health Department has been obtained.
10. The contractor shall submit a detailed description of the operation to the Westchester County Health Department before start of demolition.
11. The Mount Kisco Urban Renewal Agency shall submit to each police department having jurisdiction over the proposed route of transfer and to Westchester County Health Department the following: route of transfer, license number of each vehicle that will be used, list of names and telephone numbers to contact and procedures that local police should follow in the event of an accident.

12. Except as otherwise specified in this exemption, the operation shall be carried out in accordance with the following:

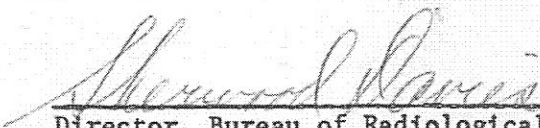
"SPECIFICATIONS FOR ITEM 1 - CONTRACT II, KISCO AVENUE - SUTTON LANE RENEWAL PROJECT, October 21, 1965."

Letter from Joseph R. Pacitto to Mr. Calvin E. Weber, February 16, 1966, which includes "AMENDMENT NO. 1 TO ITEM 1 - CONTRACT UNIT II A."

Letter from Mr. Pacitto to Mr. Weber dated March 16, 1966.

Letter from Westchester County Department of Parks, Recreation and Conservation from Charles E. Pound to Doctor Brumfield dated April 6, 1966.

For The New York State Department of Health


Director, Bureau of Radiological Health Services

Dated

April 25, 1966

Rossi-Halmar

A JOINT VENTURE

ROSSI BROS., INC.
24 COLUMBUS AVENUE
MT. KISCO, N. Y.
MO 6-6421



HALMAR CONSTRUCTION CORP.
30 STEVENS AVENUE
MOUNT VERNON, N. Y.
MO 8-9500

November 14, 1966

Mr. Joseph R. Pacitto, Executive Director
Urban Renewal Agency
Municipal Building
Mount Kisco, New York

Re: Item I - Contract Unit II-A
Demolition of Canadian Radium &
Uranium Corporation Facilities

Dear Mr. Pacitto:

We describe below, at the direction of Mr. Cal Webber (Senior Sanitary Engineer, Westchester County Department of Health) the truck route that we expect to follow, both laden and unladen, between Can-Rad Building site and Croton Point Dump.

Described Route (Project to Dump):

Travel southerly on Kisco Avenue in Mount Kisco to Route 133; drive westerly on Route 133 (through Mount Kisco, New Castle and Ossining) to Route 9A; head northwesterly on Route 9A and 9 to Croton Point Avenue in Croton-on-Hudson; travel westerly on Croton Point Avenue to disposal area.

We intend, barring some unforeseeable problem, to adhere strictly to the outlined route. We respectfully request that you advise all concerned Police Departments of scheduled activity.

Very truly yours,

ROSSI-HALMAR

Albert L. Rossi
Albert L. Rossi

FDem:EO

Copies for: Mr. Ronald Freeman, 5 Horseshoe Rd., Mt. Kisco, N.Y.
Isotopes, Inc., 123 Woodland Ave., Westwood, N. J.
Mr. Louis Iozzino